

[0067] In case where the connecting unit 52 is attached to the spine board 103 as above, each photo-coupler 54 emits in the same direction. And at this time, if the directions of the connecting terminals 21 attached to each movable axis part 50 are orientated to the same direction, the reflectors 50 attached on the inside of each connecting terminal has the same width in the axis direction along with the inside of the reflector 53. Therefore, it is needless to say that signals corresponding to the rotated angle of each movable axis part 50 (that is to say, the rotated angle of each electronic paper 101) are outputted from the photo-couplers 54.

[0068] The above explains about the configuration that each movable axis part 50 is directly connected with each other. However, it may be arranged as shown in FIG. 19 that an intermediate fixing part 57 be intervened between movable axis parts 50, thereby the connecting unit can be attached to the spine board 103 stably.

[0069] The fitting parts 50a and 50b of respective movable parts 50 are inserted into the intermediate fixing parts 57 rotatably, therefore the connecting unit 52 comprising those movable parts 50 can be configured. The connecting unit 52 is fixed to the spine board 103 by the axis end part 56 and also fixed to the spine board 103 by the intermediate fixing part 57 in the same way as described above. In this case, the element fixing axis 55 may comprise the same configuration as above (See FIG. 17), but it may be arranged as shown in FIG. 20 that the element fixing axis 55 be protruded to the inside of each movable axis part 50 from each intermediate fixing part 57 or each axis end part 56.

[0070] In this case, even if a variable resistance 70 is adopted instead of the photo-coupler 54 as shown in FIG. 21, it is possible to obtain the rotated angle of each electronic paper. The variable resistance 70 in the shape of a doughnut is fixed to each element fixing axis 55 so as not to prevent the rotation of the movable axis part 50, and the movable terminal 71 contacting the doughnut variable resistance 70 is provided on each inside of movable axis part 50. According to this configuration, when each connecting terminal 21 is oriented in a specific direction, each variable resistance 70 outputs the same value as that of the connecting terminal 21. Therefore it is possible to obtain the rotational angle of each electronic paper.

[0071] Besides, the invention is arranged in the above that the reflector 53 is provided on the inside of the circumference of the movable axis part 50, however, the invention is not restricted to this. That is to say, if the movable axis part 50 is made of a transmissive material, the reflector 53 may be provided on the outside of the circumference of the movable axis part 50, thereby it is possible to obtain the same effect.

[0072] When the rotated angle of each connecting terminal 21 of the cover can be obtained by using the above photo-coupler 54 or variable resistance 70, the rotated angle is notified to the attachable state detecting means 30 by position detecting means 36 of the cover. Thereby, after detecting the connecting terminal 21 to which the electronic paper is attached, the attachable state detecting means 30 imparts the connecting order ID number to the detected connecting terminal 21 on the basis of the content notified as above. The detailed explanation of the operations is explained as follows.

[0073] It is assumed in the following description, as shown in FIGS. 17(a) and 17(b), that the connecting termi-

nal ID number 1 is imparted to the connecting terminal 21 at the position nearest to the axis end part 56 on the upper side, the connecting terminal ID number 2 is imparted to the connecting terminal 21 near to the second to the axis end part 56 on the upper side, the connecting terminal ID number 3 is imparted to the connecting terminal 21 near to the third to the axis end part 56 on the upper side, and the connecting terminal ID number 4 is imparted to the connecting terminal 21 near to the fourth to the axis end part 56 on the upper side. Additionally, it is also assumed that those connecting terminal ID Nos. 1 to 4 are stored in the first storage means 105 together with the arrange order.

[0074] First of all, after receiving the rotated angle from the position detecting means 36, the attachable state detecting means 30 detects the connecting terminal 21 to which the electronic paper 101 is attached as described above. It is needless to say that the starting order of operations is not restricted regarding the operation that the position detecting means 36 obtains the rotated angle and the operation that the attachable state detecting means 30 detects the connecting terminal to which the electronic paper 101 is attached. That is to say, those operations may be performed in parallel (FIG. 18, S181 and S182)

[0075] In the next place, the attachable state detecting means 30 obtains from the first storage means 105 the connecting terminal ID number of the connecting terminal 21 detected as above. For instance, when the electronic paper is attached to respective connecting terminals 21 of the connecting terminal ID Nos. 1 and 3, the attachable state detecting means 30 obtains the connecting terminal ID Nos. 1 and 3 from the first storage means 105.

[0076] The attachable state detecting means 30 imparts the connecting order ID number to respective connecting terminals of the connecting terminal ID Nos. 1 and 3 (FIG. 18, S183). However, as the configuration is assumed that the movable axis part 50 can be rotated, the imparting processing of the connecting order ID number should be performed according to the rotated angle informed from the position detecting means 36 as follows.

[0077] For instance, here is explained about a case that the attachable state detecting means 30 is informed from the position detection means 36 that the rotated angle is getting smaller in the order, the connecting terminal 21 of the connecting terminal ID No. 2, the connecting terminal 21 of the connecting terminal ID No. 1, the connecting terminal 21 of the connecting terminal ID No. 4, the connecting terminal 21 of the connecting terminal ID No. 3. In this case, the attachable state detecting means 30 imparts to the connecting terminal 21 of the connecting terminal ID No. 1 the connecting order ID No. C1 representing that the attached electronic paper is the nearest to the cover sheet 31, and the connecting terminal 21 of the connecting terminal ID No. 3 the connecting order ID No. C2 representing that the attached electronic paper 101 is near the second to the cover sheet 31.

[0078] Additionally, the attachable state detecting means 30 stores in the first storage means 105 that the connecting order ID Nos. C1 and C2 were imparted (FIG. 18, S184), while notifying the first display control means 106 of the connecting order ID Nos. C1 and C2. Therefore, the first display control means 106 in response to the notice transfers the display-data to the connecting terminals 21 of the